

Appl. No. 10/848,734
Amendment dated July 24, 2006
Reply to Office Action of March 28, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 - 9 (canceled)

Claim 10 (currently amended) An expandable centralizer for centering a tool in a wellbore having an opening larger in diameter than the diameter of an opening through which the expandable centralizer can freely pass, the expandable centralizer comprising:

a body connectable in a workstring, said body having a bore defined therein running axially therethrough, said body including:

a first portion being substantially cylindrical in shape and having a substantially circular cross-section of a first diameter;

a second portion being polyhedral in cross-section and having a plurality of faces disposed parallel to said bore;

a plurality of centralizing members, one of said centralizing members being located, respectively, on one of said faces;

actuating means for moving said centralizing members from a first position within said first diameter to a second position wherein portions of said centralizing members are located outside said first diameter;

wherein said second position is variable depending on said actuating means;

wherein there are at least three centralizing members;

wherein said faces are identical and are arranged equidistantly around said body;

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wherein there are three faces, wherein said second portion has a triangular cross-section, and wherein each face has an associated centralizing member arranged thereon; wherein each centralizing member includes a pivot point and each centralizing member is pivoted at said pivot point against its associated face; and

~~The expandable centralizer of Claim 9 further including a spring located at each of said pivot points such that each member is returned to said first position from said second position on cessation of operation of said actuating means.~~

Claim 11 (canceled)

Claim 12 (original): The expandable centralizer of Claim 10 wherein said actuating means is a piston, said piston having a leading end arranged for contacting a portion of each centralizing member, on actuation of said piston.

Claim 13 (original): The expandable centralizer of Claim 12 wherein said piston is hydraulically actuated.

Claim 14 (original): The expandable centralizer of Claim 13 wherein differential fluid pressure created in said workstring operates said piston.

Claim 15 (canceled)

Claim 16 (original): The expandable centralizer of Claim 14 further including at least one intensifier, each intensifier having a first face disposed perpendicular to said bore, said first face having a surface area greater than said operating surface area of said piston.

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Claim 17 (canceled)

Claim 18 (currently amended): An expandable centralizer for centering a tool in a wellbore having an opening larger in diameter than the diameter of an opening through which the expandable centralizer can freely pass, the expandable centralizer comprising:

a body connectable in a workstring, said body having a bore defined therein running axially therethrough, said body including:

a first portion being substantially cylindrical in shape and having a substantially circular cross-section of a first diameter;

a second portion being polyhedral in cross-section and having a plurality of faces disposed parallel to said bore;

a plurality of centralizing members, one of said centralizing members being located, respectively, on one of said faces;

actuating means for moving said centralizing members from a first position within said first diameter to a second position wherein portions of said centralizing members are located outside said first diameter; and

The expandable centralizer of Claim 1 wherein said second portion of said body is arranged on a cylindrical core for allowing said first and second portions to rotate independently of each other.

Claim 19 (canceled)